SECTION 2. ENGINEERING PROCEDURES FOR OE CASES FOR FM BROADCAST AND ILS/VOR

17. PURPOSE. The purpose of these procedures is to determine whether a new FM broadcast station (88-108 MHz) can be safely operated without causing destructive RFI to an in-place or proposed FAA ILS or VOR. (See appendix 3 for using the AAM to check ILS frequency proposals.)

a. Both airborne receivers aboard aircraft and FAA ground receivers are to be considered. The FMO conducts a study, then makes a recommendation to AT as to whether to concur or non-concur. Simultaneously, while the FMO is studying the RFI potential, other services in the regional office are studying whether the new tower or structure would have an adverse effect on the safe and efficient use of airspace. A non-concur recommendation can stop the proponent (PROP) from getting FCC approval for the station. The engineering study which results in the decision must be carefully and thoroughly done, since there are considerable political and financial pressures involved.

b. Referring to the PROP's location, a check is made to find the nearest FAA or military A/G VHF or UHF communications facility within RLOS. Once located, the FM station's anticipated signal level at that site is determined. The frequencies involved are 118-137 MHz and 225-400 MHz. If the PROP's out-of-band signal level is calculated to exceed -4 dBm, the decision is **non-concur**, because at that level ground receivers will overload and function improperly. If the in-band spurious emission level would exceed -104 dBm, then a **concur with comment** determination is made. This states that Spectrum Management will concur **provided** sufficient additional attenuation is provided by the PROP for the above bands to assure that the -104 dBm or better level is met within those bands. See paragraphs 10 and 11, Section 1 of this appendix.

c. These same levels are used for other sources of potential RFI, such as Police and Fire transmitters, Radio Paging transmitters and any of the many sources in the FCC's Radio Services. That procedure is covered in section 3 of this appendix.

d. The AAM is used for evaluating the potential interference to ILS/VOR from FM broadcast stations. The AAM negates tedious calculation after all parameters have been inputted.

18. OE CASE EVALUATION PROCEDURE. A work sheet is a very handy guide. It assures that all needed functions are accomplished and describes what conditions led to the concur/non-concur decision. See figure 15 for a practical worksheet. To start with, gather the heading information from the Form 7460-1. It is needed in working the AAM. Use the antenna AMSL height from 5C of that form, unless the PROP supplies an antenna drawing with dimensions so that the RCAMSL of the transmitting antenna is specified. Use RCAMSL if it is available.

FIGURE 15. SAMPLE OE CASE WORKSHEET FOR FM

OBSTRUCTION EVALUATION (OE) WORKSHEET
FM BROADCAST STATIONS

DATE 4-15-93 *LOCATION* MERCED, CA *CASE #* TEST

PROP COORDINATES: 371644/1203735 *ANT MSL* 620'COR

PROP FREQ 104.7 *MHz ERP* 50 *kW CALL* KHTN *FM ANT* 6-BAY

SCENARIO: PROP proposes to move presently-licensed KHTN to new location. Same power & freq.

__ *NEW INSTALLATION*
X *MODIFICATION AND/OR RELOCATION OF AN EXISTING STATION*

__ *RUN PCCIRCLE REPORT PROGRAM (30 nmi radius).*

__ *No VHF/UHF comm frequency within 30 nmi.*
X *FAA COMM frequency within 118-400 MHz.*
X *Run GROUND.WK1 program on nearest/lowest frequency for levels.*

__ *in-band spurious level < -104 dBm. CONCUR*
X *out-of-band radiation level < -4 dBm. CONCUR*
X *in-band spurious level > -104 dBm. CONCUR WITH COMMENT*
__ *out-of-band radiation level > -4 dBm. NON-CONCUR*

X *RUN AIRSPACE ANALYSIS MODEL (AAM)*

__ *No ILS within 30 nmi.*
X *check all ILS'S within 30 nmi radius of PROP.*

X *print all available charts and plots.*

__ *No VOR within 30 nmi.*
X *check all VOR'S within 30 nmi radius of PROP.*

X *Run VOR portion of AAM. if a problem, use Venn diagram.*
__ *Run IM and FMDESENS programs.*
__ *Run OE2.WK1, OE3.WK1, or do a manual Venn diagram.*

X *PROP IS A MODIFICATION OR RELOCATION. RUN ALL ABOVE PROGRAMS AS APPROPRIATE FOR BOTH PROPOSED AND EXISTING FACILITIES.*

X *EVALUATE RESULTS:*

__ *NEW FACILITY; No points of predicted interference. CONCUR*
__ *NEW FACILITY; Exceeds in-band limit only - CONCUR WITH COMMENT.*
__ *NEW FACILITY; Interference predicted. NON-CONCUR*
__ *MODIFIED FACILITY; Proposed facility clear on its own merit. CONCUR*
X *MODIFIED FACILITY; Proposed facility's predicted interference is the same or less than the present facility. CONCUR W/COND. STATEMENT*
__ *MODIFIED FACILITY; Proposed facility's predicted interference is greater than the present facility. NON-CONCUR*

X *FINAL RECOMMENDATION* CONCUR W/COMMENT & CONCUR W/COND STATEMENT.

a. Task 1. Use the CIRCLE program to obtain a circle search of all FAA and military COMM facilities within 30 nmi of the PROP's location. When the CIRCLE report prints out, look first for the lowest/closest FAA or military VHF frequency. If none is found, then look for the first UHF. In the rare event that no FAA/military ground VHF/UHF COMM is found, then skip Task 2, below, and go on directly to Task 3. Normally there will be a site. Complete the key in front of the appropriate entry for this function in the worksheet. A sample printout is shown in figure 16.

b. Task 2. Determine the actual levels, using the GROUND.WRK1 File. Enter the data from the worksheet and antenna data from the graphs within the program. When completed, type "P" and the form will print out on your printer. A sample printout is shown in figure 17. Notice the last two lines on the page. If the calculated values are less than the two maximum permissible values shown, this part of the study is completed. Note that they are negative values, so a lesser value of signal is a greater negative number. Mark the first two keys of the result on the worksheet. If either exceeds, complete that portion of the sub-status statements on the work sheet and be guided accordingly for the final recommendation as to concur/non-concur or concur with comment.

c. Task 3. Run the AAM program. Instructions are contained in the *User's Manual and Technical Reference to the Airspace Analysis Model*.

FIGURE 16. SAMPLE PC CIRCLE REPORT

PC Circle Report
Date: 04-08-93
Assignments Found Within 15.00(nm) of 371644N, 1203735W

Source	Identifier	Freq. (MHz)	Lat.	Lon.	Dis. (nm)	TC (Deg)	St.	City	XAZ (Deg)	XCL	Gain (dB)	Elev. (ft)	Hght. (ft)	REMO1	Power (KW)
FM	KHTN BPH920313ICA	104.7000	371644N	1203735W	.00	0	CA	Los Banos	-	-	-	-	-	APP	50.000
FM	KVRQ BPH910816IDA	92.5000	371642N	1203733W	.04	141	CA	Atwater	-	-	-	-	-	APP	6.000
FM	KVRQ BMPH900112IFC	92.5000	371629N	1203540W	1.55	99	CA	Atwater	-	-	-	-	-	CP	3.000
FM	RM6606 A	92.5000	371605N	1203538W	1.68	112	CA	Atwater	-	-	-	-	-	ADD	.000
FM	RM6606 D	92.5000	371728N	1203404W	2.89	75	CA	Atwater	-	-	-	-	-	DEL	.000
GMF	FAA 850657	169.3000	371714N	1203348W	3.05	80	CA	MERCED	ND		00	00213	030	0035	.030
GMF	FAA 850658	172.9000	371714N	1203348W	3.05	80	CA	MERCED	ND		00	00213	030	0035	.030
GMF	FAA 730801	109.3000	371733N	1203121W	5.03	80	CA	MERCED	138	MCE	12	00151	007	0018	.020
GMF	FAA 801913	991.0000	371734N	1203119W	5.06	80	CA	MERCED	ND	MCE	11	00151	020	0018	.100
FM	KNTO BLH841113KKL	95.9000	371857N	1204320W	5.08	295	CA	Livingston	-	-	-	-	-	LIC	3.000
GMF	FAA 922707	132.1750	371720N	1203057W	5.31	83	CA	MERCED	ND		00	00151	023	0010,	.005
GMF	FAA 760048	124.8000	371714N	1203048W	5.42	84	CA	MERCED						0045	.010
GMF	FAA 765180	165.7625	371714N	1203048W	5.42	84	CA	MERCED	ND		00	00230	059	XXXXX	.010
GMF	FAA 730802	332.0000	371649N	1203038W	5.53	89	CA	MERCED			10	00151	030	0010	.005
GMF	FAA 892307	75.0000	371623N	1203003W	6.00	93	CA	MERCED						0001	.004
GMF	AF 782584	109.5000	372153N	1203305W	6.27	34	CA	CASTLE	322	AWZ	15	00177	007	0018,	.025
GMF	AF 748086	332.6000	372251N	1203503W	6.44	18	CA	CASTLE	142		12	00194	016	0010,	.002
GMF	AF 762358	109.5000	372251N	1203503W	6.44	18	CA	CASTLE	142	MER	17	00194	016	0018,	.005
GMF	AF 814902	1030.0000	372234N	1203311W	6.80	30	CA	CASTLE	R		22	00190	023	347	.100
GMF	AF 891008	1090.0000	372234N	1203311W	6.80	30	CA	CASTLE	ND		00			0001,	.050
FM	KHTN BLH800506AGL	104.7000	371129N	1203203W	6.85	139	CA	Los Banos	-	-	-	-	-	LIC	50.000
GMF	AF 841409	120.0500	372237N	1203303W	6.90	31	CA	CASTLE	ND		05	00180	026	0020,	.010
GMF	AF 834337	124.8000	372237N	1203303W	6.90	31	CA	CASTLE	ND		05	00180	026	0045,	.010
GMF	AF 835573	118.4500	372237N	1203303W	6.90	31	CA	CASTLE	ND		03	00180	026	0030,	.010
GMF	AF 756337	126.5000	372237N	1203303W	6.90	31	CA	CASTLE	ND		03	00187	079	0045,	.010
GMF	AF 782585	332.6000	372330N	1203436W	7.17	19	CA	CASTLE	322		16	00213	030	0010,	.006
GMF	AF 841464	1002.0000	372341N	1203436W	7.34	18	CA	CASTLE	ND	MER	05	00194	046	0040,	3.000
GMF	AF 841410	120.9500	372333N	1203350W	7.44	23	CA	CASTLE	ND		05	00190	026	0020,	.010
AM	KLOQ	1.5800	371731N	1202603W	9.21	85	-	-	-	-	-	-	-	-	-
AM	BL821130BEKYOS	1.4800	372230N	1202737W	9.80	53	-	-	-	-	-	-	-	-	-
FM	KFMK BMPH910422IGC	98.7000	372231N	1202737W	9.81	53	CA	Winton	-	-	-	-	-	CP	4.400
FM	KABXFM BLH7878 L	97.5000	372231N	1202737W	9.81	53	CA	Merced	-	-	-	-	-	LIC	50.000
FM	KXDE BPH880301MYC	107.7000	372205N	1202710W	9.86	57	CA	Merced	-	-	-	-	-	CP	3.000
PND	FAA 742411MNA	75.0000	371242N	1202600W	10.06	113	CA	MERCED						0001	.004
GMF	FAA 742411	75.0000	371242N	1202600W	10.06	113	CA	MERCED						0001	.004
FM	KYAJ BPH910116MTC	94.1000	371705N	1202409W	10.69	88	CA	Merced	-	-	-	-	-	CP	3.000
GMF	FAA 701865	114.2000	371310N	1202401W	11.37	108	CA	EL NIDO	ND	HYP	02	00197	020	0040	.100
GMF	FAA 872046	1176.0000	371310N	1202401W	11.37	108	CA	EL NIDO	ND	HYP	00	00197	016	0040	1.000
TV	SO BPCT870327KK	693.2500	371511N	1202257W	11.75	97	-	-	-	-	-	-	-	-	-
FM	KFIE BLED890725KEL	106.3000	372534N	1202623W	12.54	45	CA	Merced	-	-	-	-	-	LIC	2.950
TV	7FD BLTT9207091B	729.2500	372534N	1202623W	12.54	45	-	-	-	-	-	-	-	-	-
FM	KFIE BPH911210IHC	106.3000	372608N	1202623W	12.95	43	CA	Merced	-	-	-	-	-	CP	2.500
AM	BL861119ABKLBS	1.3300	370551N	1204951W	14.63	221	-	-	-	-	-	-	-	-	-

FIGURE 17. SAMPLE GROUND.WK1 REPORT

AIRSPACE NUMBER:

LOCATION: DATE: 14-Apr-93

FAA SITE:

Lat N 34 5 18	Protected frequency	127.0	MHz
Lon W 117 8 15	Antenna height AMSL	1590.0	ft

PROPONENT: PROP

Lat N 34 5 16	Radiated Power	0.1	Kw
Lon W 117 8 16	Frequency	155.3	MHz
	Antenna height AMSL	1595.0	ft
	Slant Distance: Da =	219.0	ft
	Theta	1.3	deg

EIRP = Effective Radiated Power of the proponent. EIRP = 10 log (power in Kw) + 62.2		50.0	dBm
Lr = Receiver system on frequency losses. Use 3 dB if actual value unknown.		3.0	dB
La = Typical ground/air antenna loss. Select VHF or UHF graph from menu.		2.0	dB
Lp = Polarization loss between the victim and broadcast antennas. If the broadcast antenna is horizontally polarized, Lp = 16 dB, for vert or circular polarization, Lp = 0 dB.		0.0	dB
Ld = Antenna vertical directivity. This term requires antenna pattern data from the proponent. E = relative E-field at vertical Theta from above. If unknown, enter E = 1. Ld = 10 log (E)^2	E = 1	0.0	dB
Sr = FCC spurious emission tolerance. Enter the lesser: 80 dB for FM, 60 dB for TV, or 43 + 10 log ERP in watts =	60.8	60.8	dB
Lv = Free space transmission loss at the victim receive frequency. Lv = 20 log (freq. in MHz X Da in ft) - 37		51.9	dB
Li = Free space transmission loss at the frequency of the interferring station.		53.6	dB

IN-BAND RADIATION (must be less than -104 dBm) EIRP - Lv - Ld - Lp - Lr - Sr ==========>	-65.7	dBm
OUT-OF-BAND RADIATION (must be less than -4 dBm) EIRP - Li - Ld - Lp - Lr - La ==========>	-8.6	dBm

19. EXAMPLE OF AAM PROGRAM FOR FM/ILS

a. The following illustrates a typical OE case study. For the example, FM station KHTN is requesting to move its facilities to another location. Both the present and new location of KHTN must be earmarked as "PROP'S" by placing a "1" in the appropriate column for KHTN.

b. Using the parameters in figures 9 and 15, the AAM program will produce a plot of the ILS's that need to be studied (see figure 18). Although all 5 ILS's within 30 nmi shown on the plot must be checked, only MCE is used for this example. Even though the AAM may prompt for the back courses, the *Terminal Procedures* manual should be consulted to verify whether the back course must be evaluated.

c. After the FM and VOR database has been edited and the AAM has run this phase, it produces the RFI.PRT which indicates RFI for both the PROP and the present station. See figure 19. Note in the summary at the end of the report that a greater number of IM points exists for KTHN than for the PROP.

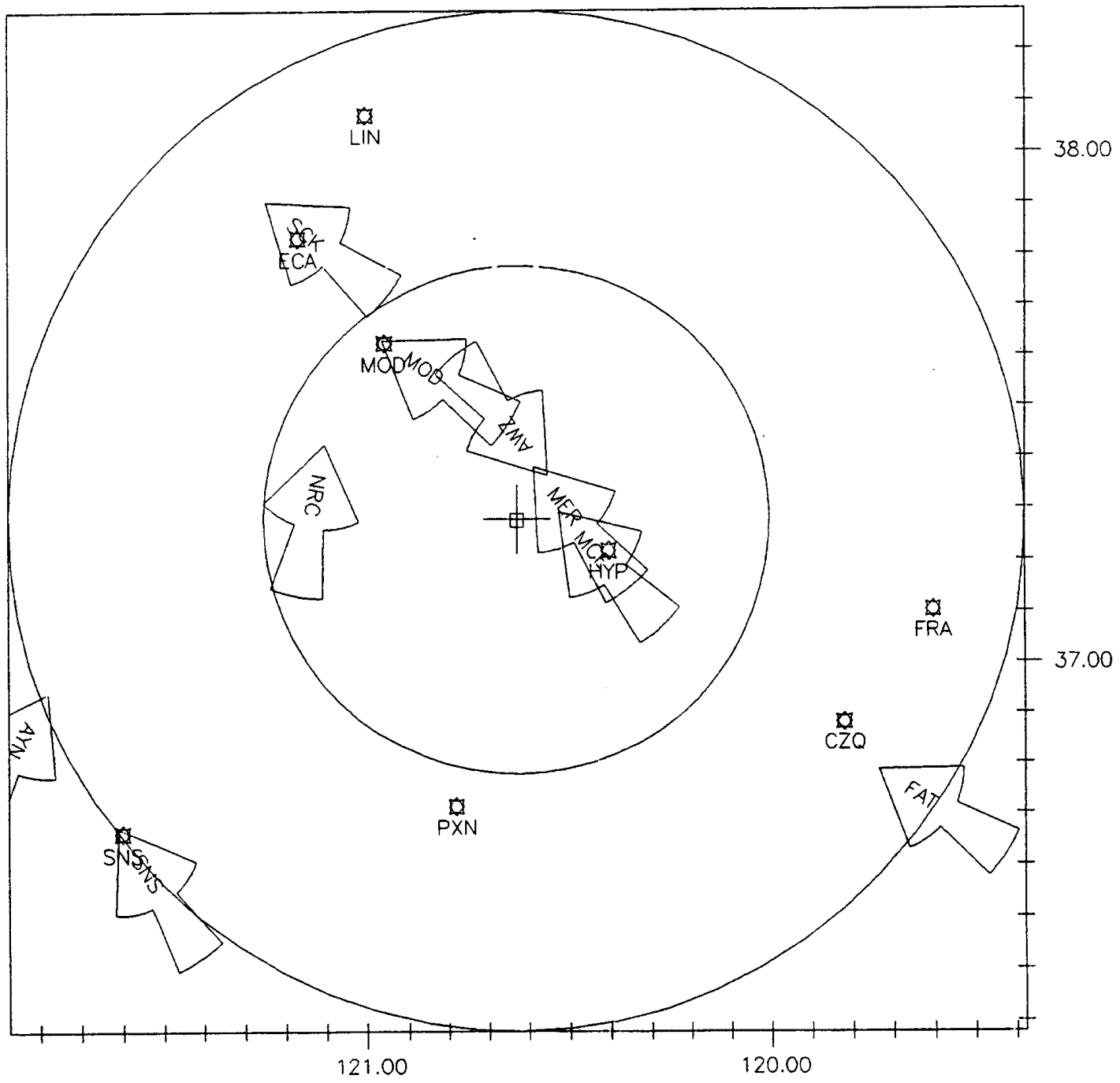
d. Figures 20 and 21 are the horizontal printouts of the predicted RFI. The numbers 1 through 9 and letters a through d indicate the intensity of the predicted RFI. The higher the number (or letter), the higher the intensity. Their locations within the FPSV indicate the predicted RFI location and altitude. Because of the small font size of the numerals or letters, a dot-matrix printer or low dots-per-inch (dpi) printer may not resolve them, but show only dots. No letters or numerals in the printout would indicate no RFI is predicted. The bold lines in these horizontal studies printout pages indicate the altitude "slice" studied, in this case, the default, the bottom of the FPSV.

e. Figures 22 and 23 are the vertical printouts of the predicted RFI. The numbers and letters represent the same information as in figures 20 and 21. The bold lines in these vertical studies printout pages indicate the azimuth of the vertical "slice."

f. Based on the MCE analysis data, a PROP's move to the requested location would reduce the potential RFI to MCE (front course), thus would be advantageous to FAA. The action would be **concur with conditional statement**. That statement would indicate that the move would be satisfactory by reducing the RFI potential. However, if there is increased RFI, the PROP must take steps to remedy the problem at the onset.

g. The GROUND.WK1 printout showed that the in-band level of -104 dBm would be exceeded, so an additional **concur with comment** is appropriate which advises the PROP that the spurious emissions must be additionally attenuated to assure the -104 dBm level is not exceeded at the Merced RCF.

FIGURE 18. AAM PROGRAM SAMPLE SEARCH PLOT



Airspace case #: TEST Proponent = PROP
Latitude = 37 – 16 – 44 N
Longitude = 120 – 37 – 35 W
Search Radius: 60 nm
Note: ILS Service Volumes Drawn to Scale

FIGURE 19a. AAM PROGRAM SAMPLE RFI.PRT PRINTOUT

PRINT DATE: 04-08-1993 08:59:16 RFI .PRT TEST

Airspace case #: TEST Site: MERCED, CA
Date: 040893
Navaid Identifier: MCE
Navaid Frequency (MHz): 109.30

Navaid Latitude: 37. 17 33
Navaid Longitude: 120. 31 21

Runway Heading (True): 318.0
Runway Elevation (Ft. MSL): 153.
Runway Length (Ft): 5903.

Prop Stat	ID	Call	Freq (MHz)	Latitude	Longitude	ERP (Kw)	Height (MSL)	Range (NM)	Radial (True)	Lic Stat
	1	KMPO	88.70	37. 32 0	120. 1 29	2.050	4301.	27.78	238.65	L
	2	KBES	89.50	37. 35 21	120. 57 23	.150	223.	27.28	130.73	C
	3	KEFR	89.90	37. 32 1	120. 1 50	1.800	4364.	27.55	238.32	L
	4	KADV	90.50	37. 36 26	120. 57 26	1.500	207.	28.02	132.36	L
	5	KFSR	90.70	36. 48 42	119. 44 43	2.550	407.	47.09	307.78	L
	6	KBDG	90.90	37. 29 59	120. 49 41	.140	190.	19.15	130.49	L
	7	KCSS	91.90	37. 31 35	120. 51 25	.150	157.	21.24	131.36	C
	8	KXMX	92.10	36. 57 58	120. 2 6	25.000	587.	30.45	310.02	L
	9	KVRQ	92.50	37. 16 42	120. 37 33	6.000	456.	5.01	80.22	A
	10	NEWx	93.30	37. 12 30	120. 15 0	3.000	604.	13.96	291.21	A
	11	KXDA	93.30	37. 13 1	120. 11 57	3.000	676.	16.09	286.36	C
	12	KYAJ	94.10	37. 17 5	120. 24 9	3.000	551.	5.75	274.66	C
	13	KTAA	94.30	36. 42 59	120. 3 51	1.350	692.	40.95	327.57	A
	14	KTAA	94.30	36. 44 29	120. 5 8	3.000	528.	39.14	327.66	L
	15	KDJK	95.10	37. 47 34	120. 31 8	29.500	1421.	30.02	180.33	L
	16	KNTO	95.90	37. 18 57	120. 43 20	3.000	413.	9.63	98.36	L
	17	KUBB	96.30	37. 32 0	120. 1 29	1.900	4390.	27.78	238.65	L
	18	KABX	97.50	37. 22 31	120. 27 37	50.000	692.	5.79	210.86	L
	19	KNAX	97.90	36. 44 9	119. 47 59	48.000	581.	48.11	313.97	L
	20	K251	98.10	36. 44 26	119. 47 39	.250	338.	48.11	313.50	C
	21	KMIX	98.30	37. 34 46	120. 50 48	4.000	515.	23.13	138.11	A
	22	KFMK	98.70	37. 22 31	120. 27 37	4.400	640.	5.79	210.86	C
	23	NEWx	99.30	36. 44 8	119. 47 11	3.000	623.	48.58	313.46	A
	24	NEWx	99.30	36. 46 47	119. 47 37	3.000	604.	46.53	311.39	A
	25	NEWx	99.30	36. 48 13	119. 47 27	3.000	614.	45.70	309.94	A
	26	K257	99.30	37. 18 50	119. 40 8	.010	3471.	40.76	268.20	L
	27	KCIV	99.90	37. 32 0	120. 1 29	1.850	4360.	27.78	238.65	L
	28	KSXY	101.10	36. 55 48	119. 38 27	10.000	1693.	47.46	297.27	L
	29	KAMB	101.50	37. 26 27	120. 8 39	17.000	2113.	20.12	243.74	C
	30	KAMB	101.50	37. 27 59	120. 14 9	50.000	1283.	17.19	232.64	L
	31	NEWx	103.10	36. 47 30	120. 30 0	3.000	551.	30.07	357.95	A
	32	KHOV	103.90	37. 32 0	120. 1 29	.070	4334.	27.78	238.65	C
*	33	KHTN	104.70	37. 11 29	120. 32 3	50.000	617.	6.09	5.25	L
*	34	PROP	104.70	37. 16 44	120. 37 35	50.000	620.	5.03	80.65	
	35	KVPC	105.50	36. 40 51	120. 9 53	3.000	515.	40.51	334.96	C

FIGURE 19b. AAM SAMPLE RFI.PRT PRINTOUT (CONTINUED)

PRINT DATE: 04-08-1993 08:59:16 RFI .PRT TEST

36	KFIE	106.30	37. 25 34	120. 26 23	2.950	771.	8.94	206.22	L
37	KQLB	106.90	36. 55 35	120. 50 42	6.000	843.	26.85	35.09	C
38	KAAT	107.10	37. 25 8	119. 44 4	.280	4337.	38.34	258.59	L
39	KMMM	107.30	36. 55 11	120. 7 3	3.000	561.	29.59	319.09	C
40	KXDE	107.70	37. 22 5	120. 27 10	3.000	571.	5.62	216.27	C
41	VPXN	112.60	36. 42 56	120. 46 44	.050	2076.	36.73	19.54	V
42	VCZQ	112.90	36. 53 1	119. 48 56	.050	377.	41.79	305.94	V
43	VHYP	114.20	37. 13 10	120. 24 1	.050	217.	7.30	306.91	V
44	VMOD	114.60	37. 37 39	120. 57 29	.050	114.	28.88	134.10	V

Interference thresholds are computed for receiver locations based on calculated field strength for a 15-Element V-Ring localizer array.

Listing of A2/B2 Evaluations

Freq (MHz)	ID	Call	Offset (MHz)	#Pts

No A2/B2 points found.

Listing of 2-frequency intermodulation (B1) combinations

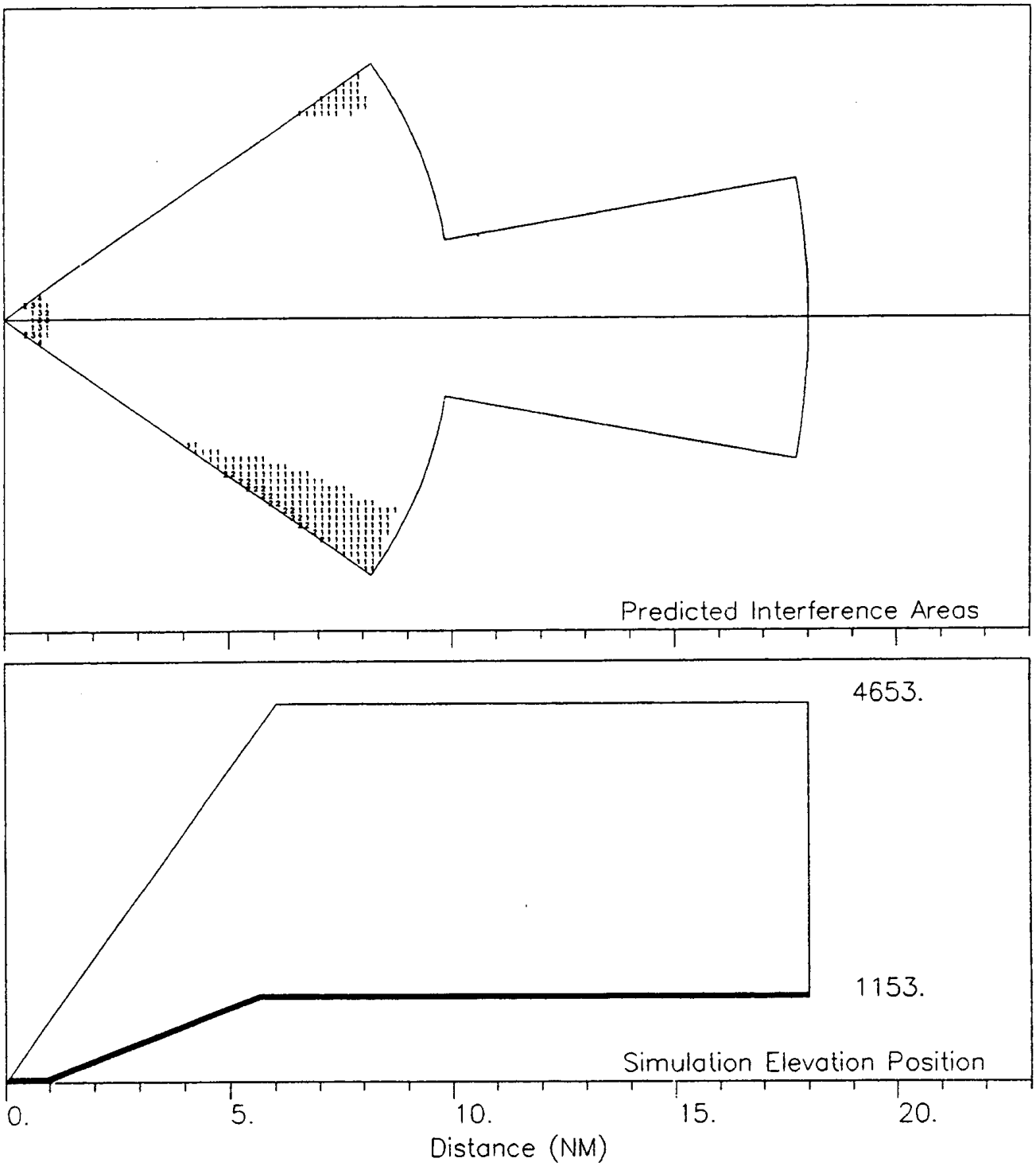
Freq 1 (MHz)	ID	Call	Freq 2 (MHz)	ID	Call	IMod (MHz)	Offset (KHz)	#Pts

No 2-frequency intermodulation interference found.

Listing of 3-frequency intermodulation (B1) combinations

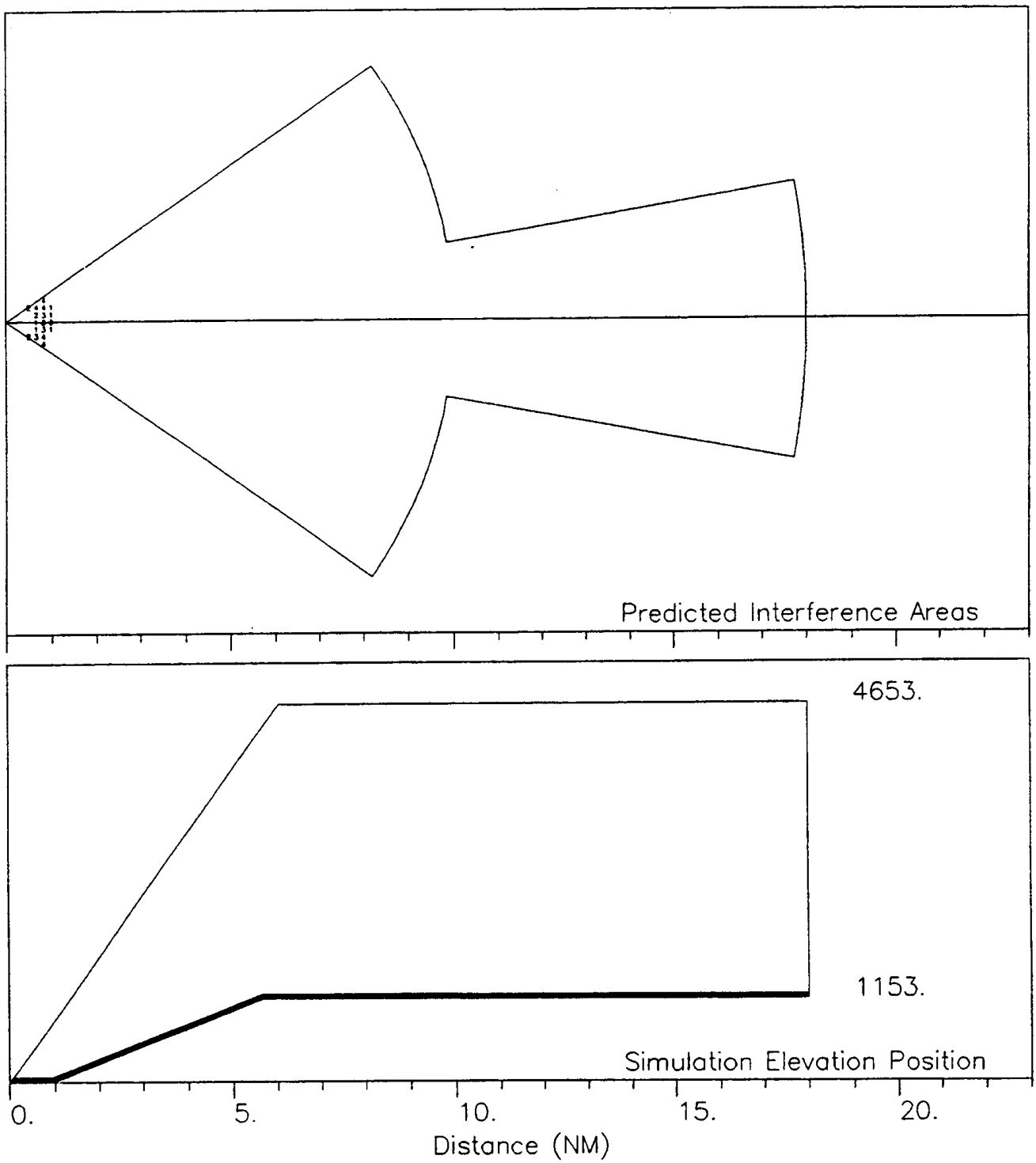
Freq 1 (MHz)	ID	Call	Freq 2 (MHz)	ID	Call	Freq 3 (MHz)	ID	Call	IMod (MHz)	Offset (KHz)	#Pts
107.70(	40)	KXDE	106.30(	36)	KFIE	104.70(	34)	PROP	109.30	0	18
107.70(	40)	KXDE	106.30(	36)	KFIE	104.70(	33)	KHTN	109.30	0	220

FIGURE 20. AAM SAMPLE PLOT OF PREDICTED RFI - HORIZONTAL - KHTN



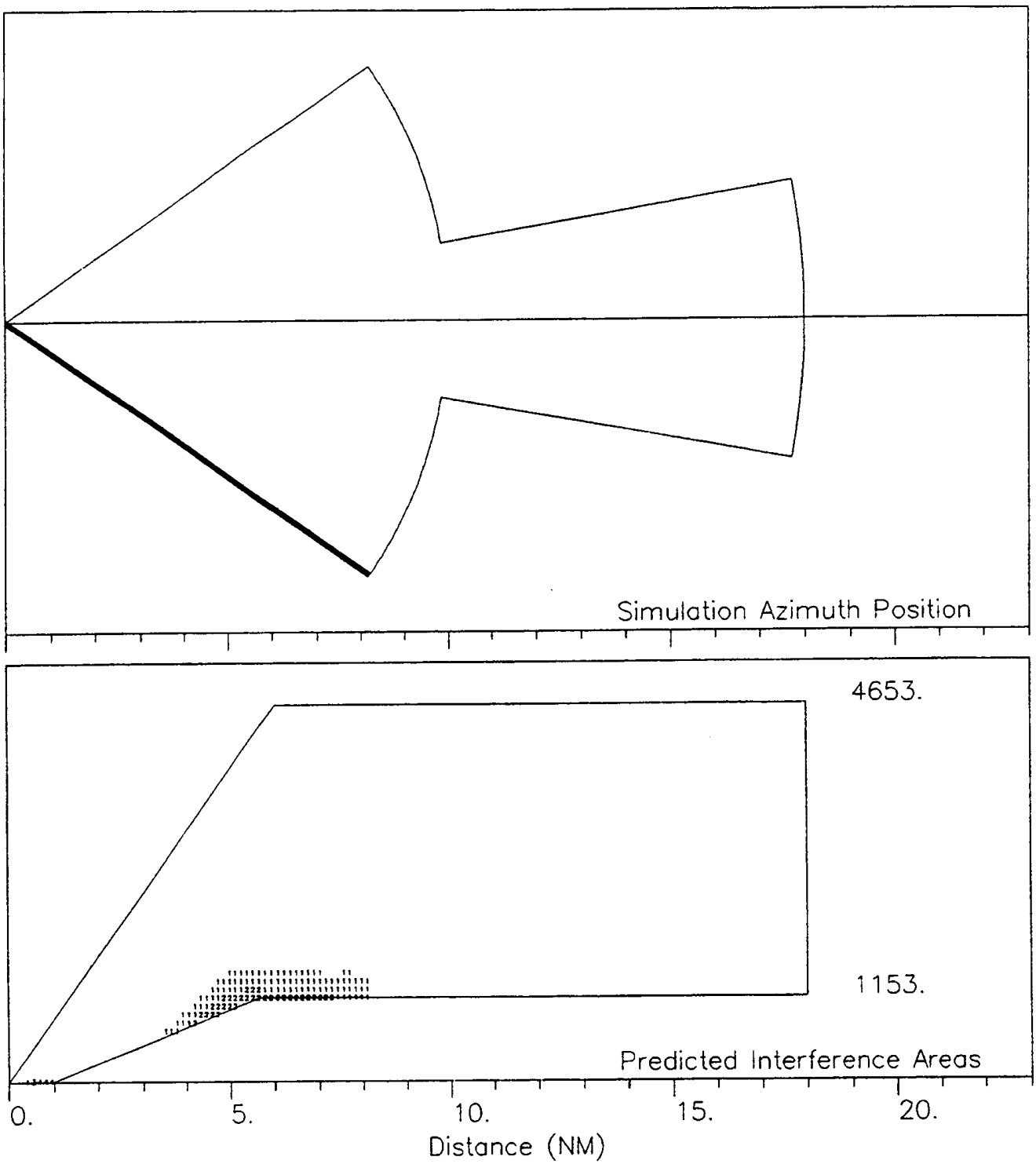
Airspace case #: TEST Site: MERCED, CA
Date: 040893 Plot filename: 14_10_0X.plt Service Volume Bottom
Intermod (B1) plot: KXDE (40), KFIE (36), & KHTN (33)
Frequencies: KXDE = 107.70 MHz KFIE = 106.30 MHz KHTN = 104.70 MHz
Navaid: MCE Frequency: 109.30 MHz Elevation (Ft. MSL): 153.
Runway heading: 318.0

FIGURE 21. AAM SAMPLE PLOT OF PREDICTED RFI - HORIZONTAL - PROP



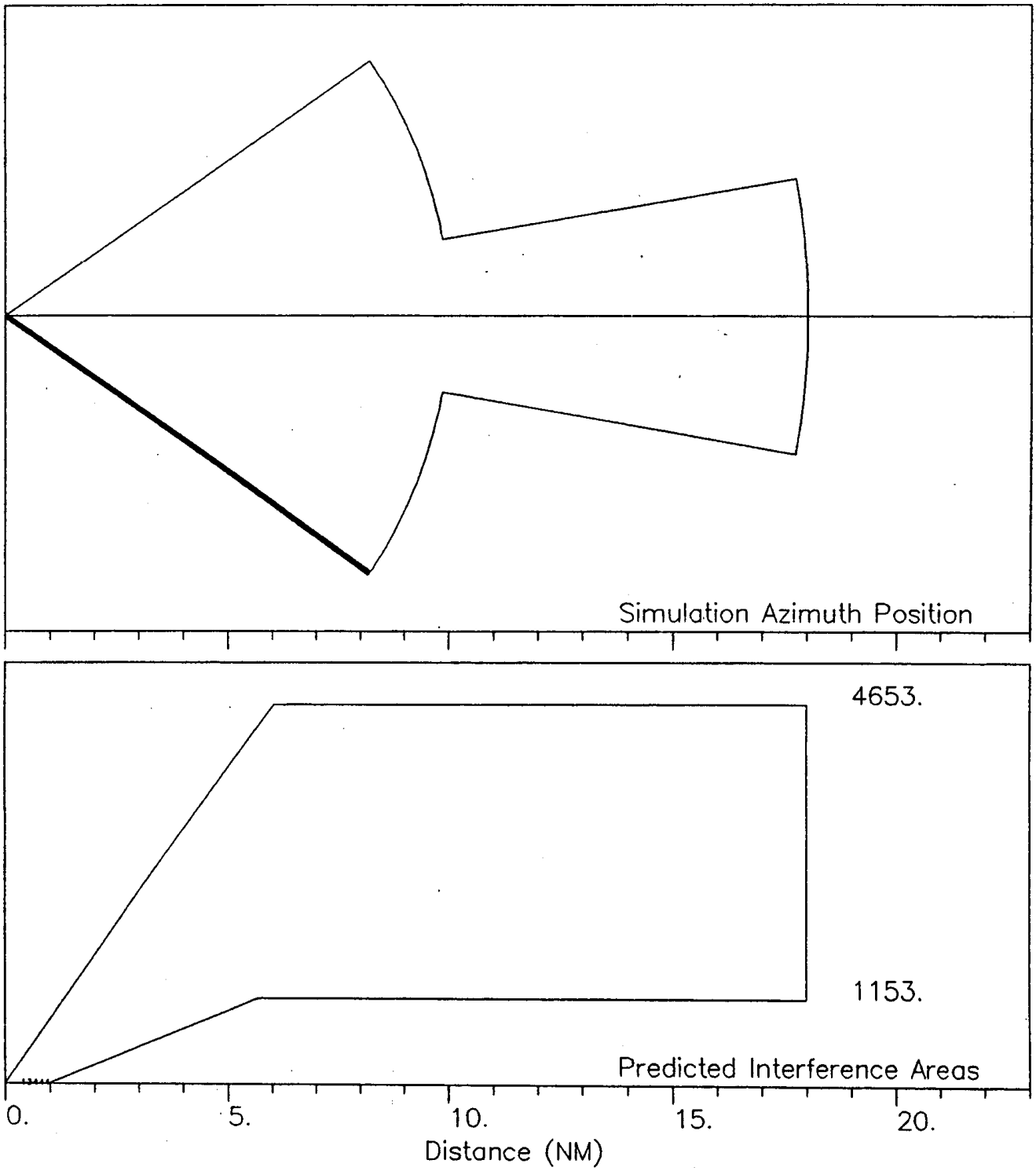
Airspace case #: TEST Site: MERCED, CA
Date:040893 Plot filename: 14_10_0Y.plt Service Volume Bottom
Intermod (B1) plot: KXDE (40), KFIE (36), & PROP (34)
Frequencies: KXDE = 107.70 MHz KFIE = 106.30 MHz PROP = 104.70 MHz
Navaid: MCE Frequency: 109.30 MHz Elevation (Ft. MSL): 153.
Runway heading: 318.0

FIGURE 22. AAM SAMPLE PLOT OF PREDICTED RFI - VERTICAL - KHTN



Airspace case #: TEST Site: MERCED, CA
Date:040893 Plot filename: 14_10_0X.plt Selected Radial = 359.8
Intermod (B1) plot: KXDE (40), KFIE (36), & KHTN (33)
Frequencies: KXDE = 107.70 MHz KFIE = 106.30 MHz KHTN = 104.70 MHz
Navaid: MCE Frequency: 109.30 MHz Elevation (Ft. MSL): 153.
Runway heading: 318.0

FIGURE 23. AAM SAMPLE PLOT OF PREDICTED RFI - VERTICAL - PROP



Airspace case #: TEST Site: MERCED, CA
Date:040893 Plot filename: 14_10_0Y.plt Selected Radial = 359.8
Intermod (B1) plot: KXDE (40), KFIE (36), & PROP (34)
Frequencies: KXDE = 107.70 MHz KFIE = 106.30 MHz PROP = 104.70 MHz
Navaid: MCE Frequency: 109.30 MHz Elevation (Ft. MSL): 153.
Runway heading: 318.0

FIGURES 24. thru 30. RESERVED.

20. thru 24. RESERVED.